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Title *Active RCS Reduction: Preliminary Studies on Sidelobe Cancellation in Phased Arrays*

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Abstract

In this report the interference suppression capabilities of generalized sidelobe canceller (GSC) and decision feedback generalized sidelobe canceller (DF-GSC) for a uniformly spaced array have been studied. DF-GSC is found to be more effective and robust in suppressing interferences as compared to conventional cancellers. Simulations are carried out using standard LMS algorithm for weight estimation. Results obtained are validated against those given in open literature. Different types of constraints are further added to the formulation of DF-GSC to enhance its robustness.